

**Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A device for cooling an exothermic electrical component-(1), of the type comprising a metal member forming a radiator (7)-thermally coupled to a metal mass of the component forming a heat dissipating mass (5)-of the component-(1), ~~characterized in that~~wherein the radiator (7)-is thermally coupled to the dissipating mass (5) by at least one heat sink (10)-formed by an autogenous weld between one face of the dissipating mass-(5), called the dissipating face-(5A), and one face (7A)-of the radiator-(7), opposite each other.

2. (Currently Amended) The device as claimed in claim 1, in which at least one element among the dissipating mass (5)-and the radiator (7)-is made from copper.

3. (Currently Amended) The device as claimed in ~~either of claims 1 and 2~~claim 1, in which the component (1)-comprises at least one heat source and in which the heat sink (10)-is aligned with this source substantially parallel to a direction perpendicular to the dissipating face-(5A).

4. (Currently Amended) The device as claimed in claim 3, in which the heat source comprises a semiconductor-(2).

5. (Currently Amended) The device as claimed in ~~any one of claims 1 to 4~~claim 1, in which the area of the dissipating face ~~(5A)~~ included in the heat sink ~~(10)~~ corresponds to at least 5% of the area of the dissipating face ~~(5A)~~.

6. (Currently Amended) The device as claimed in ~~any one of claims 1 to 5~~claim 1, in which the sink ~~(10)~~ also forms a means for fixing the component ~~(1)~~ to the radiator ~~(7)~~.

7. (Currently Amended) The device as claimed in ~~any one of claims 1 to 6~~claim 1, in which the sink ~~(10)~~ also forms a means of electrical conduction between the component ~~(1)~~ and the radiator ~~(7)~~.

8. (Currently Amended) The device as claimed in ~~any one of claims 1 to 7~~claim 1, in which the radiator ~~(7)~~ has a plate shape and is provided with one large face ~~(7A)~~ opposite the dissipating mass ~~(5)~~ and one large face ~~(7B)~~, opposite to the preceding face, bearing on a support ~~(9)~~.

9. (Currently Amended) The device as claimed in claim 8, in which the support ~~(9)~~ is made from a material transparent to a wavelength of a laser welding head.

10. (Currently Amended) The device as claimed in ~~either of claims 8 and 9~~claim 8, in which the radiator ~~(7)~~ is provided with two small opposed faces connected by overmolding of material ~~(8)~~, preferably of plastic, to two substantially parallel electrically conducting bars ~~(3)~~.

11. (Currently Amended) The device as claimed in ~~any one of claims 1 to 10~~claim 1, comprising a plurality of heat sinks ~~(10)~~.

12. (Currently Amended) A method for producing a device as claimed in claim 11, ~~characterized in that~~wherein a set of heat sinks ~~(10)~~ is formed by autogenous welding in two steps during each of which one subset of sinks ~~(10)~~ is formed, these two steps being separated by a step of fixing the component ~~(1)~~ to a support ~~(3)~~ separate from the radiator ~~(7)~~.

13. (Currently Amended) The method as claimed in claim 12, ~~characterized in that~~wherein the autogenous welding is carried out using a laser welding head.

14. (Currently Amended) The method as claimed in claim 13, ~~of a device as claimed in claim 9~~wherein the device is a device for cooling an exothermic electrical component, of the type comprising a metal member forming a radiator thermally coupled to a metal mass of the component forming a heat dissipating mass of the component, wherein the radiator is thermally coupled to the dissipating mass by at least one heat sink formed by an autogenous weld between one face of the dissipating mass, called the dissipating face, and one face of the radiator, opposite each other, in which the sink also forms a means for fixing the component to the radiator, in which the sink also forms a means of electrical conduction between the component and the radiator, in which the radiator has a plate shape and is provided with one large face opposite the dissipating mass and one large face, opposite to the preceding face, bearing on a support, and in which the support is made from a material transparent to a wavelength of a laser welding head, in which the autogenous welding is carried out through the support~~(9)~~.

15. (Currently Amended) The method as claimed in claim 12, ~~characterized in~~  
~~that~~wherein the autogenous welding is carried out using a vacuum electron beam (11).